



Northern California Water Association Technical Comments
On
CALFED Bay-Delta Program
Draft Programmatic Environmental Impact Statement / Report
June 20, 1998

The Northern California Water Association (NCWA) submits the following comments on the CALFED Bay-Delta Program's Draft Programmatic Environmental Impact Statement / Report (PEIS/EIR). This paper has been structured to support the three primary arguments presented in the NCWA policy letter submitted to CALFED concurrent with this document. We believe the Draft PEIS/EIR fails to provide a sufficient level of detail on the individual program components, and that many of the various actions and recommendations in the report exclusively focus upon resolving Delta environmental problems while downplaying upstream problems caused by Delta conditions. CALFED must further emphasize improved integrated water management practices with new storage facilities over solely relying on traditional conservation and water transfers to solve the Bay-Delta's problems.

NEED FOR SPECIFICS ON ELEMENTS FUNDAMENTAL TO A SOLUTION

The Draft PEIS/EIR fails to provide a sufficient level of detail and analysis in several areas important to NCWA members, such as new storage, conjunctive use, and environmental restoration measures. Key information is equally necessary on elements such as the phasing and implementation of various program projects and actions, financing and assurances.

Storage and Conveyance Issues

The water supply analysis presented in the Draft EIS/EIR is very limited and offers little opportunity for comment. CALFED has not released a detailed analysis of storage options in the draft EIS/EIR. Instead, a preliminary evaluation was performed to determine an appropriate range of storage to be examined at the programmatic level. CALFED has held off on further commitment to identify storage locations and sizes until detailed study and interaction with stakeholders is accomplished in the next few months. We look forward to the release of a CALFED document that seriously examines the relative benefits of new surface storage facilities. As noted in our policy letter to CALFED, we recommend that CALFED include storage as a "common" program for all project alternatives in recognition of its fundamental importance to a successful CALFED solution.

Several basic operating assumptions stated in the "Program Alternatives Technical Appendix" require clarification from CALFED as to their application in forming the basis for future CALFED policy. Key operating concerns include: allocation of new surface water supplies, allocation of new groundwater and conjunctive use water, new storage filling and discharge criteria, and beneficial use allocation of new stored water. For many of the alternative configurations which include storage, CALFED assumes that new diversions to storage from the Sacramento River cannot occur in any given water year until a 60,000 cfs mean daily flow event that "preserves the river's natural fluvial geomorphology process" has occurred at Chico Landing. CALFED must:

1) Provide solid justification for the use of this value, and 2) Clarify the apparent conflict that may exist between this assumption and a proposed CALFED mitigation action which suggests that limiting offshore diversions to the August-October time period might mitigate fisheries.

Other CALFED observations appear to be preliminary and can only be conclusively stated after specific siting and operations criteria have been developed. For example the Draft PEIS/EIR also notes that north of Delta storage would cause slight increases in Sacramento River flows when water is released from storage (Page 6.2-1). We expect that surface storage dedicated primarily for water supply purposes on the west side of the valley may allow additional flexibility to operate instream facilities like Shasta and Oroville by opening up additional flood control storage in those reservoirs, thereby allowing for optimal controlled downstream releases. The Draft PEIS/EIR notes that, while increased storage on Sacramento River tributaries could provide localized flood control, it would have to be considered unreliable as a flood control measure, since the additional storage would be dedicated for other purposes (p.8.4-23). This may not necessarily be true if operation criteria are developed that dedicate additional flood control reservoir capacity to reservoirs currently managed primarily for water supply purposes. The reservoir water supply storage dedicated to flood control may be reallocated to the new storage facilities.

The Draft PEIS/EIR provides only a very preliminary, primarily qualitative assessment of potential adverse impacts and benefits to groundwater resources resulting from CALFED activities, including up to 250,000 acre-feet of conjunctive use management in the Sacramento Valley. For the most part, CALFED actions are anticipated to result in less than significant adverse impacts. For those areas with potentially significant impacts, mitigation measures are expected to remedy potential problems. The Draft PEIS/EIR notes that no groundwater modeling studies were performed and that groundwater impacts were evaluated qualitatively. However, the Draft PEIS/EIR also notes that impacts are assessed based on several potential occurrences, including degradation in groundwater quality, long-term declines in groundwater levels, third party effects, and land subsidence. Please elaborate on how these impacts were assessed in the absence of groundwater modeling.

The second bullet point on Page 6.2-4 includes two incorrect observations regarding groundwater management in the Sacramento Valley. Contrary to the language presented, a large number of local agencies have developed groundwater management plans under AB 3030, including several water districts in the Sacramento Valley. Further, this bullet also notes that cities and counties may adopt ordinances giving them authority to manage groundwater, but incorrectly states that "this has not occurred." Several Sacramento Valley counties, including Butte, Glenn, Sutter, Tehama and Yolo have all adopted groundwater ordinances.

Please clarify what is meant by "non-industrial non-point sources" and provide further documentation to demonstrate the extent of "widespread" low level contamination of shallow aquifers in the Sacramento Valley. Page 6.2-24 states that non-industrial non-point sources have resulted in widespread low level contamination of shallow aquifers in the past, and reduction in these sources would result in a beneficial impact on groundwater quality. This appears to conflict with the description provided on page 6.2-9, which suggests that elevated concentrations of introduced contaminants have been observed in "some areas" of the Sacramento Valley, and

further notes that "natural groundwater quality is generally excellent throughout the Sacramento Valley".

CALFED must provide detailed information on proposed conjunctive use programs in the revised programmatic environmental document. As evidenced by the recent negative public reaction to the Supplemental Water Purchase Program and the controversy surrounding conjunctive use language in the governor's water bond, CALFED will likely experience tremendous difficulty in initially establishing a conjunctive use program in the Sacramento Valley. The CALFED groundwater outreach report ("Status Report on Technical Studies for the Storage and Conveyance Refinement Process: CALFED Groundwater Outreach Program") provides an excellent summary of Central Valley concerns relative to conjunctive use and offers draft principles to address those concerns. Outside of two isolated cases – one reference on the last page of this appendix and one reference in the Phase II Interim Report – no further mention is made of the CALFED groundwater outreach report in the entire draft CALFED EIS/EIR. If CALFED intends to gain local public support for conjunctive use storage programs, we recommend that the main body of this report be attached as an appendix to the revised draft PEIS/EIR to be released later this year.

Ecosystem Restoration Program

Overall, additional work is required to provide the proposed Ecosystem Restoration Program with a clearly focused approach to ecosystem restoration. The same concerns previously stated to CALFED in NCWA's December 22, 1997 letter to Lester Snow still hold, and that document is incorporated by reference into this report. The present ERPP is deficient in several areas important to NCWA members:

- The ERPP does not provide a clear, logical prioritization of actions, although the Strategic Plan intends to address this.
- The ERPP fails to support the document's basic premise as to how specific instream flows will benefit ecosystem restoration¹. CALFED must clearly identify all proposed flows from each affected Bay-Delta tributary.
- CALFED must hold environmental water use to efficiency standards similar to those applied to agricultural water use.
- Additional documentation and justification should be provided to demonstrate that certain smaller Sacramento River tributaries will sustain an annual cycle of salmon production.

¹ An illustrative example might better demonstrate the relationship between ERP instream flow targets, ERP Delta outflow targets and reservoir inflows during dry and below normal water years. Please clarify the discussion on page 6.1-51, second column, first paragraph of the Draft PEIS/EIR.

- The ERPP fails to propose a priority implementation plan to address fish screening at riverine diversions.
- The ERPP does not include an objective assessment of the effects of fishery harvest on Central Valley anadromous salmonids.
- The CALFED interim implementation plan should provide a detailed accounting of locations, estimated acreage, and proposed land uses, as well as a preliminary acquisition schedule for the estimated 26,000 – 34,000 acres of agricultural land that will be converted to habitat purposes in the Sacramento Valley.
- The ERP Strategic Plan should prioritize the development of guidelines for the public process noted in the Draft (p. 5-7) that would include extensive community, land owner, and stakeholder involvement.
- The current outline presented in “Developing a Strategic Plan for Ecosystem Restoration” does not address potential impact issues associated with “natural process replication” ERP actions and only discusses in a peripheral manner how these issues will be adaptively managed.

Existing levees along the Sacramento and Feather Rivers and new set back levees proposed by the ERP require additional attention by CALFED. The long-term Levee Protection Plan Technical Appendix addresses only those levees within the legally defined Delta. CALFED is to be commended for this well organized document, which appears to be supported by excellent documentation. While this document does not appear to address levee construction or reconstruction in other parts of the CALFED study area, such as setback levees associated with upstream ecosystem restoration activities, we recommend that it be used as a basis to provide technical and financial recommendations for this purpose.

Clarification will be required by CALFED to better specify which portions of other existing restoration programs will be implemented under the CALFED umbrella. For example, SB 1086 actions are not included in the No-Action Alternative because “many” of these actions are being considered for implementation by CALFED (Page B-171, “No-Action Alternative Technical Appendix”). Also, while this appendix notes that a “partial” list of CVPIA actions are included in the CALFED No-Action Alternative, it appears that these actions are limited to CVPIA flow reallocations relating to B-2 requirements and Level IV refuge water deliveries. The No Action Alternative and the Cumulative Impact Assessment sections of the DEIS/EIR require additional clarification to show how CVPIA and SB 1086 riparian enhancement target acreage directly relate to similar proposed CALFED ERP actions.

CALFED must specify which programs and individual ERP actions will be used by NMFS and other CALFED agencies to address recent National Marine Fisheries Service (NMFS) decisions to: 1) fold steelhead recovery actions into the CALFED solution, and 2) consider whether Central Valley fall, late-fall and spring-run species are listed as threatened and endangered, respectively, under the federal Endangered Species Act.

NCWA advocates that CALFED develop a plan which ultimately will implement fiscally and biologically sound restoration objectives through cooperative partnerships between local, state and federal governments and public and private interests. The CALFED goal should be to develop a workable, action and results-oriented plan which can be implemented in a timely manner.

CALFED must develop a priority implementation plan to address fish screening and other fishery improvements at riverine diversions. CALFED notes that effective screening of diversions would reduce entrainment of all species in the mainstem river and tributaries (p 7.1-13). Several fishery restoration projects have been completed in the Sacramento Valley, and many other key fish screen projects are either under construction, or slated for construction in the near future. CALFED should continue to focus on these efforts, which serve a twofold purpose: 1) Improved migratory conditions for threatened and endangered chinook salmon and steelhead trout, and 2) Development of expanded empirical information to better address the unprecedented screening proposed by CALFED for the Delta export pumps, and possibly, the screened intake for an isolated facility.

Implementation Strategy

The CALFED Draft EIS/EIR only briefly discusses an implementation strategy to assure that the plan will be implemented and operated as agreed. We are concerned that the Draft PEIS/EIR appears to advocate ERP implementation ahead of other CALFED common and variable programs, as suggested by the following:

- The analysis of and disclosure for the ERP is more advanced than that presented for other program elements (for example, assumptions utilized in the Draft PEIS/EIR analyses provide for full flow targets for the ERP, while there is only graduated implementation of water quality and supply actions).
- Ecosystem restoration activities are afforded a greater degree of detail and are assigned a higher level of priority than water supply improvements.
- Over 800 pages of text are dedicated to the proposed Ecosystem Restoration Program, with hundreds of actions proposed for the Sacramento Valley.
- Discussion of specific water supply facilities, meanwhile, is essentially limited to a few paragraphs and a sidebar in the Phase II Interim Report.
- The Conservation Strategy appears to promote early implementation of ERP activities.

The implementation plan must link projects meeting ecosystem restoration, water supply, and water quality and system integrity objectives in a manner that ensures that all objectives achieve benefits on an incremental basis. It should include triggers, linkages, and conditions to be met before various actions are taken. We strongly recommend inclusion of a specific outline of the implementation plan in the Revised Draft PEIS/EIR and full discussion of the implementation plan in either the Final PEIS/EIR or in a separate supplemental EIS/EIR as appropriate, in order to ensure that adequate disclosure and process is accomplished as required by NEPA and CEQA. We look forward to working with CALFED to provide substantial input to the development of the implementation plan.

Financial Plan

The CALFED financial plan is so general in nature that an adequate test of compliance with NCWA financial principles cannot be made at this time. The preliminary CALFED financial strategy suggests that the preferred alternative will be funded through a combination of Federal, State and user fees. The financial strategy suggests that direct beneficiaries of specific actions will likely pay, at least in part, for those benefits². Program elements that provide broad public benefits would be funded by state and federal agencies and through new appropriations.

CALFED should continue to evaluate and develop cost allocation strategies that sustain the agricultural economy and recognize the public benefits derived from water quality, environmental protection, flood control, recreation, and reliable water supplies. To promote the concept of "getting better together", these cost allocation strategies must not require additional payment from agricultural water uses to restore supplies lost to regulatory or legislative actions, such as the Central Valley Project Improvement Act and the Endangered Species Act.

Mitigation Strategy

Mitigation strategies proposed are vague and often may require additional mitigation to compensate for their implementation. The Draft PEIS/EIR, while acknowledging that extensive significant impacts from the CALFED program would occur in the Sacramento Valley, does not identify adequate mitigation measures and suggests that CALFED will not directly assume the responsibility to mitigate impacts caused by its program. Throughout the Draft PEIS/EIR, repeated statements are made that the mitigation strategies are "general" and "conceptual in nature". The document further states that "Final mitigation would need to be approved by responsible agencies as specific projects are approved by subsequent environmental review" (page 8.1-38).

Our review of the mitigation strategy raised questions regarding over 20 proposed actions. For example, to mitigate for potential program impacts to groundwater resources, the Draft PEIS/EIR proposes to import water from other basins, which would present obvious difficulties to Sacramento Valley water users. Another groundwater mitigation action proposed is to purchase water rights from willing sellers, which essentially intensifies the potential impacts to source areas already being considered to satisfy ERP flow requirements. Finally, CALFED suggests that groundwater withdrawals be regulated for mitigation purposes. The Draft PEIS/EIR does not provide any discussion on the legal means of accomplishing this potentially controversial measure, which it states is the only sure method of preventing significant groundwater declines.

The mitigation "actions" to alleviate impacts to agricultural resources are more difficult to accept. Providing advice on how to "stretch existing water supplies in cost-effective ways to keep water

² The Phase II Interim Report also stresses that new storage facilities costs should be borne by those who benefit from the program (pg. 66).

acquisition costs down” and “ways to increase the production yielded from a unit of water” is not mitigation. In order to comply with CEQA, the mitigation measures must be expanded and strengthened.

CALFED ACTIONS TO IMPROVE DELTA CONDITIONS WILL CREATE ADDITIONAL PROBLEMS FOR UPSTREAM AREAS.

Several CALFED alternative configurations will not impart additional water supply benefits to the Sacramento River region (p. 8.1-28). The U.S. Department of Interior’s Programmatic Environment Impact Statement developed for the 1992 Central Valley Project Improvement Act suggests that considerable impacts may occur in the Sacramento Valley as existing agricultural surface water is transferred for environmental use to outside areas. These impacts will likely result in increased groundwater pumping and changes in farming. The CALFED Draft PEIS/EIR points out that potential beneficiaries of new storage in the Sacramento River Region would be primarily CVP contractors, who would use the water to offset these serious impacts (p. 8.1-36).

CVPIA contract renewal assumptions incorporated into the CALFED PEIS/EIR analysis could adversely impact Sacramento Valley CVP contractors. CALFED notes that No Action Alternative for the CVPIA PEIS is similar to the No Action Alternative being considered by CALFED, and states that “...the CVPIA PEIS includes future contract renewals and CVP operations as major components...” (Page 16, “No-Action Alternative Technical Appendix”). As you may know, the CVPIA PEIS proposes two assumptions regarding contract renewal which have potentially damaging implications for CVP contractors in the Sacramento Valley.

First, the CVPIA PEIS No-Action Alternative assumes that existing contracts will be renewed for no more than the lesser of contract quantity or maximum water used for the study period 1980-93. Second, it is assumed that Sacramento Valley districts will not contract for additional supplies in the next 25 years. Thus, any additional contract supplies used or provided in the Sacramento Valley under existing contract rights will have to be assessed in the future for their “environmental impact.” This assumption is flawed, and inappropriate, because it fails to recognize the development and economic pressures experienced in the Sacramento Valley during the 1980 through 1993 time period. We will strongly oppose the envelopment of the CVPIA contract renewal assumptions into the CALFED Draft PEIS/EIR analysis. CALFED must clarify whether CVPIA contract renewal criteria are incorporated into their No Action Alternative analysis.

Proposed ERP water acquisitions will reallocate upstream waters away from agricultural uses. The ERP will purchase surface water from existing users to release into streams for in-stream environmental purposes. The reduction in applied surface water can impact local groundwater levels in two ways: 1) Existing irrigation needs may have to be supported by groundwater pumping, and 2) Reduction in applied surface water will cause reductions in groundwater recharge that will affect groundwater levels, storage and quality. These impacts are not discussed in the Draft PEIS/EIR (see Pages 6.2-3 & 24) although the report does identify impacts associated with transfers resulting from cross-Delta conveyance improvements (Page 6.2-26). The groundwater impacts identified by CALFED for water transfers should also apply to ERP-supported water acquisitions.

The increase in Sacramento River and tributary stream flows due to meeting March ERP flow targets for Delta outflow is expected to be significant (p. 6.1-51). The impacts of these increased flows on downstream levee seepage and diversion performance must be assessed and mitigated for, if necessary. For Alternatives 2 and 3, more water flow down the Sacramento River is expected for export in the fall. As discussed elsewhere in this report, the hydraulic impacts of these higher than normal flows on downstream water districts and reclamation districts presently battling lateral seepage problems behind existing levees must be assessed and mitigated for in the CALFED solution.

ERP actions may exacerbate flooding in the Sacramento Valley. Flood stages will increase not only because of increased stream channel roughness, as observed on Page 8.4-23, but also because of the decreased channel cross section that will result when vegetation and trapped sediment restrict channel flow area. Also, the increased debris loads associated with heavily vegetated stream reaches pose a threat to downstream diversion facilities and transportation infrastructure. The impact assessment discussed in the "Transportation" section of the Draft PEIS/EIR (Page 6.5-8) makes no mention of possible ERPP impacts to infrastructure resulting from increased upstream debris loads or the hydraulic impacts that may occur when reforestation or meander projects are proposed adjacent to existing road and railway bridges.

ERP actions may conflict with existing floodplain management regulations. Riparian reforestation, setback levees, and gravel stockpiling could be viewed as floodway development activities. Current federal floodplain regulations administered by designated local agencies (typically city and county building or planning officials) generally restrict development of any type in designated floodways. Development in floodplains, on the other hand, is permitted, subject to certain conditions. CALFED must specify how proposed ERP actions will be implemented in accordance with existing floodplain development regulations. Conversely, the CALFED suggestion that "future development" will be excluded from floodplains (page 8.4-23) goes far beyond the limits of existing regulations.

CALFED'S PEIS/EIR ESTABLISHES AN OVER-RELIANCE ON TRADITIONAL WATER USE EFFICIENCY MEASURES AND WATER TRANSFERS TO SOLVE THE BAY-DELTA'S PROBLEMS, RATHER THAN INTEGRATING IMPROVED WATER MANAGEMENT PRACTICES WITH NEW STORAGE RESERVOIR FACILITIES.

Draft PEIS/EIR Over-Reliance on Water Use Efficiency Measures

The Draft PEIS/EIR underestimates potential land use impacts resulting from water use efficiency actions (page 5-5). This assessment does not reflect an issue that has recently become more of a problem in certain areas of the Sacramento Valley: salt build-up in soils where recycled drain water is used for irrigation. This can have a negative impact on crop production, an obviously critical land use issue to farmers. In some areas of the Valley, it has been determined that the cost of recycling water and attendant negative impact on crops is greater than the traditional cost of pumping and returning water back to the river. NCWA supports the CALFED

mitigation strategy (for soils and geologic impacts) which proposes that the volume of irrigation water used is always sufficient to flush accumulated salts from the root zone.

The Draft PEIS/EIR assessment of groundwater resources seriously downplays several potentially serious impacts that could result from reduced groundwater recharge due to implementation of water use efficiency measures. Additional reliance on groundwater to make up for dwindling surface supplies could have a significant impact on the agricultural economy of these areas. For example, the PEIS prepared for implementation of the Central Valley Project Improvement Act estimates that, due to proposed tiered water pricing, lost surface water deliveries will be replaced through groundwater pumping. Largely the agricultural service contractors served by the Tehama-Colusa Canal will feel these impacts. Yet the Tehama-Colusa Canal project was originally developed in large measure because of the lack of any significant groundwater resources in the area.

Page 6.2-19 discusses implications of CVPIA reallocations to San Joaquin groundwater resources. A similar discussion should be included in the previous section relative to CVPIA impacts to Sacramento Valley groundwater. Pronounced groundwater declines on the west side of the Sacramento Valley could have potentially significant economic and environmental impacts. It is a well-documented fact that groundwater levels in many areas on the west side of the valley were already declining prior to the construction of CVP surface water delivery systems over 30 years ago. Upon completion of the Tehama-Colusa and Corning Canals, groundwater levels in some wells began to recover and rose to historic maximum levels. These levels were essentially maintained through the 1970s and mid-1980s. The drought experienced in the early 1990s, coupled with the increased cost of CVP water, forced many west side irrigators to turn to groundwater, where available, as an affordable, reliable source of supply. However, the increased reliance on groundwater has accompanied noted declines in groundwater levels in several areas close to CVP delivery systems³.

The CALFED Draft PEIS/EIR (page 8.1-27) briefly mentions that agricultural land may be removed from production because of increased costs and decreased profitability which could result from required efficiency improvements or increased district water charges (for example, as part of tiered water pricing). This statement is remarkably similar to projected impacts of the CVPIA on westside Sacramento Valley contractors. Due to proposed tiered water pricing, the CVPIA PEIS estimates that up to 570,000 acre-feet of CVP water could be unaffordable for existing users and not used for water service contract demands. Associated with this loss of water, 56,000 acres of land are expected to go out of production in the Sacramento Valley and possible groundwater impacts may result, as discussed previously. Conversion or loss of agricultural land would be a potentially significant adverse land use impact of this program, particularly when assessed in light of the Central Valley Project Improvement Act.

The CALFED water use efficiency program will result in less water available to incidental habitats that are dependent on existing "inefficiencies". Return flows from rice fields provide important floodwater for winter wetlands habitat in the Butte, Sutter and Colusa Basins of the

³ Please see Corning Water District Groundwater Analysis, DWR Northern District, 1996.

Sacramento Valley. These flows also support important habitat in water supply canals and drainage ditches, including the Giant Garter Snake (GGS), a federally listed as threatened species. (Page 7.2-27). Reduction or elimination of losses that are reused by these habitat areas could adversely impact their survival.

CALFED water use efficiency actions in the Sacramento may conflict with Giant Garter Snake and other mandated recovery tasks. Of critical importance to Sacramento Valley rice farmers are efforts underway by agency and stakeholder representatives to develop the ongoing recovery plan for the Giant Garter Snake (GGS). Many of the recovery actions under consideration emphasize protection of rice farming and maintenance of traditional canal flows to support recovery of the GGS. Proposed CALFED water use efficiency measures must not interfere with critical recovery processes mandated by the federal Endangered Species Act.

Without support by the water suppliers and other agencies such as DWR and USBR, high on-farm efficiency, if not impossible, can be much more difficult to achieve. The range of annual costs to achieve on-farm irrigation efficiency of 85 percent in the Sacramento River region is estimated at \$50-\$60 per acre-foot. In addition, districts will have significant costs for district level improvements such as lining canals, flexible water delivery systems, regulatory reservoirs, tail-water and spill-water recovery systems⁴.

Surface Storage Downplayed in Draft PEIS/EIR

The CALFED environmental document is critical of onstream storage facilities. While new onstream storage may indeed block passage of anadromous fish to upstream spawning and rearing areas and alter natural streamflow patterns (p. 7.1-39), there is also strong evidence that these facilities can provide fisheries benefits, as evidenced by the success of the Yuba County Water Agency (YCWA). Since its construction by YCWA over 30 years ago, New Bullards Bar Reservoir has provided more reliable flows at lower temperatures, contributing to increased steelhead and salmon runs on the Yuba River. Prior to the construction of the YCWA project, the chinook salmon fall run reached a low of 1,000 fish with a long-term average of 12,900 fish. With YCWA's operation of this on-stream dam, the post-project average has risen to 14,200 with 1996 and 1997 runs of 27,500 and 25,800 fish respectively. It should be further noted that the Yuba is managed as a natural spawning fishery, with no hatchery or planting support, and that stored water transferred out of New Bullards Bar has supplied 97,000 acre-feet of environmental water and 258,000 acre-feet of free water for fishery enhancement.

All anticipated environmental benefits provided by new surface storage should be addressed at the front end of the CALFED storage site screening process. CALFED is currently in the process of screening six surface storage facilities in Northern California⁵. These screening parameters, while providing a quick means of eliminating obviously unfeasible storage sites, do

⁴ CALFED estimates the Sacramento River region's district efficiency improvement costs at \$13.2 million annually, or an average cost per acre of \$7.80.

⁵ CALFED Phase II Storage and Conveyance Refinement Process Overview Technical Appendix

not appear to reflect the possible environmental benefits that well-situated storage sites can provide. For example, new offstream reservoirs on the west side of the Sacramento Valley (such as Sites) can provide downstream environmental benefits by allowing stored water to serve existing agriculture in substitution of colder water, which can be left in the river to benefit aquatic habitat⁶. Also, the development of new surface storage in close proximity to the Tehama-Colusa Canal can provide critical direct flows to west side CVP contractors while extending the "gates open" time at Red Bluff Diversion Dam, thereby greatly improving passage conditions for migratory anadromous fish in the Sacramento River. We encourage CALFED to weigh these impacts in light of the potential instream flow benefits that can be derived from offstream storage.

Need for Integrated Water Management Approach

The CALFED preferred alternative should encourage overall water management as a means to better facilitate the development of water supplies. The CALFED preferred alternative must focus on water use management through region-specific plans that take into consideration such factors as surface and groundwater quality and quantity, soil quality and type, cultural practices and economic and environmental benefits. CALFED reasons that reductions in demand levels could enable more water to be placed in storage, increasing the volume available during low-runoff years for all beneficial uses and increasing the reliability of water supplies during critically dry periods (page 6.1-71). Traditional concepts of water conservation will have limited success in the Sacramento Valley in developing new water sources⁷, a fact acknowledged on page 8.1-37 of the Draft PEIS/EIR⁸. Water use within the Sacramento Valley is at or near its maximum efficiency. The amount of water applied to farmland that is not consumptively used in this region already returns to surface or groundwater sources and provides numerous beneficial uses, in addition to its primary agricultural use. In light of these considerations, Sacramento Valley agricultural water managers will likely favor a combination of newly constructed storage with some "demand reduction-induced" storage, where appropriate.

Conjunctive management and water transfers provide important tools for local water agencies to manage their water. However, we agree with the Draft EIS/EIR assessment that groundwater transfers or surface water transfers based on groundwater substitution, unless properly regulated, could result in significant adverse impacts to third party groundwater users, with significant environmental effects in the source water area. This section should reference the CALFED groundwater outreach report and draft conjunctive use principles, which clearly outline suggested procedures necessary to develop a locally controlled, properly managed conjunctive management program. The Draft PEIS/EIR impact analysis also suggests that the ability to condition transfers on the implementation of water conservation measures in the receiving basin could be an important incentive for increasing water use efficiency (page 6.2-25). A streamlined

⁶ This argument also applies to the Draft PEIS/EIR discussion of increased Sacramento River temperature effects due to new offstream storage"(Page 6.2-63).

⁷ See DWR Bulletin 160-93, Vol. 2 at 129.

⁸ "...because virtually all applied surface water losses are recoverable and reusable in the Sacramento River Region, no net savings in consumptive use or recoverable loss (i.e. "real" water savings) are likely."

water transfer process should ensure that this requirement does not hamper the flexibility of source area sellers to participate in properly executed transfers.

CALFED must coordinate conjunctive use programs with the appropriate local groundwater management agencies. Page 6.2-26 suggests that a regional entity (perhaps a joint powers agency of Sacramento Valley counties) or separate watershed management entities could be created to study the groundwater resources of a particular area and to provide technical review and advice to local agencies regarding transfers involving groundwater. This suggestion appears to go beyond the intent of the aforementioned groundwater outreach report, and also suggests that "watershed management entities" possess groundwater management authority. This section should comply with AB 3030 (Water Code Section 10750 et seq.), which provides specific mention of those California agencies vested with groundwater management authority.

Environmental water transfers should be subjected to the same proper planning and management scrutiny paid to agricultural and urban water transfers. We are confused with a statement included on page 7.1-37 of the Draft PEIS/EIR: *"To the extent that transfers are made directly for ecosystem purposes, fisheries and aquatic ecosystems will be beneficially impacted. Significant adverse impacts may result from transfers between agricultural and urban uses if proper planning and management of specific transfers is not undertaken."* Transfer water, regardless of the final destination and use, will presumably impart instream environmental benefits for those natural stream reaches located between the transfer participants.

Properly planned and executed water transfers can benefit the local economy while contributing towards resolution of Bay-Delta problems. Considerable discussion in both of these sections of the Draft PEIS/EIR is directed towards the adverse impacts associated with poorly executed water transfers. This section does also briefly discuss how water transfers can augment and improve water supply reliability for local economies. Sacramento Valley water districts participating in water transfers have realized both of these benefits, specific examples of which include funding for local flood control improvements and environmental enhancement projects, and affordable water rates for local users.

Adaptive management techniques must apply to human needs as well as species when ecosystem restoration actions are implemented. The Conservation Strategy proposes to identify a process for dealing with unforeseen circumstances that result in a substantial and adverse change in the status of a species covered by the Conservation Strategy. This same rationale must be expanded and applied to develop a similar mechanism to address unforeseen circumstances that adversely impact human activities associated with theoretical restoration actions.

We agree with CALFED's proposal to identify a strategy for developing a design and maintenance program to allow reasonable execution of flood control operations. If these common measures, which have become increasingly difficult to accomplish along Sacramento Valley watercourses in recent years, are to partially serve as mitigation measures for negative flood control impacts caused by ERP actions, the existing multi-layered regulatory process must be simplified and streamlined.

Locally driven water quality programs, with CALFED technical assistance and funding, will play an important part in local water management plans. Thus far, we are encouraged that CALFED's Water Quality Program relies heavily on the implementation of measures based on financial and regulatory incentives rather than on traditional command-and-control methods employed in the past. It is our understanding that the "Water Quality Implementation Plan" to be developed later this year, will identify the specific activities and management actions in much greater detail before any specific improvement methods are adopted. NCWA will assess the final plan for compliance with the following:

- Coordination / integration of this program with the water quality components of the other common programs.
- CALFED's continued commitment to not establish new performance targets that conflict with existing lists of contaminants or numeric targets.
- Coordination of monitoring with existing programs.

CALFED's watershed management program offers an excellent opportunity to assist local water management efforts. NCWA endorses the cooperative nature of watershed management programs, as evidenced by the successful operations of existing organizations like the Butte Creek Conservancy, Deer Creek Conservancy, and Mill Creek Watershed Conservancy. These groups have demonstrated that local landowners, water districts and other stakeholders, with technical assistance provided by state and federal agencies, can develop effective solutions to specific local watershed problems. In keeping with the original intent of watershed management, CALFED would best serve as an information clearinghouse for data gathered by these watershed groups, but should not exercise direct oversight of watershed activity funding.

Thank you for considering our comments. We look forward to our continued involvement with CALFED and the Revised Draft PEIS/EIR.



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